September 7, 2001

MEMORANDUM

TO: Katherine B. Kelly, Program Administrator
State Air Quality Program

FROM: Steve Ogle, Associate Engineer
Process Engineering, State Office of Technical Services

THROUGH: Shawnee Chen, P.E., Staff Engineer
State Office of Technical Services

SUBJECT: ***TECHNICAL MEMORANDUM FOR TIER I OPERATING PERMIT***
T1-010902, Avista Corporation, Rathdrum
(Modification to Final Tier I Operating Permit, Increase in Hours of Operation)

Permittee:	Avista Corporation 13725 West Highway 53 Rathdrum, Idaho 83858
Permit Number:	055-00040
Air Quality Control Region:	062
AIRS Facility Classification:	A
Standard Industrial Classification:	4911
Zone:	11
UTM Coordinates:	510.0, 5294.3
Facility Mailing Address:	1411 East Mission Avenue, Spokane, Washington 99220
County:	Kootenai
Facility Contact Name and Title:	Mr. Hank Nelson, Environmental Compliance Coordinator
Contact Name Phone Number:	(509) 495-4613
Responsible Official Name and Title:	Mr. Rob Fukai, Vice President, External Relations
Exact plant Location:	SW ¼ Section 32, Township 25 North – Range 4 West
General Nature of Business & Kinds of Products:	Electricity Generation

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

Avista	Avista Corporation
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
C	Celsius
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
cft	Cubic Feet
CO	Carbon Monoxide
DEQ	Idaho Department of Environmental Quality
EPA	United States Environmental Protection Agency
GE	General Electric
HAPs	Hazardous Air Pollutants
Hg	Mercury
IDAPA	Idaho Administrative Procedures Act
km	Kilometer
LPG	Liquefied Petroleum Gas
mm	Millimeter
NO_X	Nitrogen Oxides
OP	Operating Permit
PM	Particulate Matter
PM_{10}	Particulate Matter with an Aerodynamic Diameter of 10 Micrometers or Less
PTC	Permit To Construct
PTE	Potential To Emit
Rules	*Rules for the Control of Air Pollution in Idaho*
SO_2	Sulfur Dioxide
T/yr	Tons Per Year
TAP	Toxic Air Pollutant
VOC	Volatile Organic Compound

PUBLIC COMMENT / AFFECTED STATES / EPA REVIEW SUMMARY

The permit has been issued as draft and has proceeded through a 30-day public comment period. A public hearing was requested and, subsequently, held on June 19, 2001 and July 12, 2001. Public comments received in response to the draft permit and technical analysis memorandum are addressed in a document entitled *STATE OF IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY RESPONSES TO COMMENTS AND QUESTIONS SUBMITTED DURING A PUBLIC COMMENT PERIOD FOR THE PROPOSED PERMIT TO CONSTRUCT AND TIER I OPERATING PERMIT FOR AVISTA CORPORATION'S RATHDRUM FACILITY,* dated July 25, 2001 (refer to Appendix B of this technical memorandum).

The U.S. Environmental Protection Agency (EPA) was sent the proposed operating permit and the technical analysis memorandum after the public comment/hearing for the 45-day review period. Idaho Department of Environmental Quality (DEQ) requested that the EPA review be processed expeditiously as a power generation project consistent with Governor Kempthorne's Directive 2001-02, dated February 22, 2001. The directive instructs DEQ to expedite review of applications for energy generation projects. EPA received the proposed documents on August 27, 2001, and determined that the permit was eligible for issuance in an August 28, 2001 letter sent to the DEQ. Although EPA allowed final permit issuance prior to the end of the 45-day review period, EPA has noted that the start date of the 45-day period is August 27, 2001.

The states of Montana and Washington are located within 50 miles of this source and their air quality may be affected by emissions from this source.

1. PURPOSE

The purpose of this memorandum is to set out the legal and factual basis for this Tier I operating permit (OP) in accordance with IDAPA 58.01.01.362, *Rules for the Control of Air Pollution in Idaho (Rules)*.

DEQ staff have reviewed the information provided by Avista Corporation (Avista) regarding the operation of their General Electric combustion turbines located near Rathdrum, Idaho. This information was submitted based on the requirements to submit a Tier I OP in accordance with IDAPA 58.01.01.300.

2. SUMMARY OF EVENTS

On February 20, 2001, DEQ received a permit-to-construct (PTC) application from Avista for their Rathdrum facility. The application was prepared by MFG, Incorporated, the facility's consulting firm. The purpose of the PTC application was to request an increase in operating hours, due to the current energy crisis throughout the northwestern United States. On March 13, 2001, the PTC application was declared complete. Subsequent analysis of the application determined that the proposed modifications were acceptable under the *Rules*, and PTC No. 055-00040 was modified to incorporate the February 20, 2001, proposal. Refer to PTC No. 055-00040 and its technical memorandum dated September 7, 2001 for details of the PTC application analysis.

The PTC issued on September 7, 2001 increased the allowable hours of operation, as well as the allowable annual emissions of particulate matter and particulate matter with an aerodynamic diameter less than ten microns (PM/PM_{10}) and volatile organic compounds (VOC). These increases exceed the limits permitted in the Avista Tier I OP No. 055-00040, originally issued on December 29, 2000. IDAPA 58.01.01.209.05(a)iii-vi requires that the Tier I OP be modified to incorporate the PTC changes. This modification is significant as defined by IDAPA 58.01.01.382.01(a).

3. BASIS OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I OP modification:

- PTC application material received from Avista on February 20, 2001; supplemental application materials received on March 19, 2001;
- PTC No. 055-00040 and its technical memorandum, issued on August 4, 1999;
- Tier I OP No. 055-00040 and its technical memorandum, issued on December 29, 2000;
- Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, April 2000, Office of Air Quality Planning and Standards, EPA;
- Guidance developed by EPA and DEQ; and
- Documents and procedures developed in the Title V Pilot Operating Permit Program.

4. PERMIT REVISIONS

The purpose of this section is document the modifications made to the existing Tier I OP. Wording that has been deleted from the existing Tier I OP is shown in strikeout format, while wording that appears only in the modified Tier I OP is underlined.

Several insignificant and/or unsubstantial changes in format have been made to the Tier I OP; these changes have been made in order to update the existing Tier I OP to the current DEQ Tier I OP format. The following significant changes have been made to the text of the Tier I OP:

4.1 Emissions Limits

The following changes have been made to the general requirements table (now titled Table 2.1) in Section B, General Electric Combustion Turbines No. 1 and No. 2 (now Section 2):

Table 2.1 (from Permit)

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring, Recordkeeping, and Reporting Requirements (Section of this Permit)
2.1	PM[a]	0.015 gr/dscf at 3% oxygen for gas	IDAPA 58.01.01.677	2.15.5, 2.18
2.2	Opacity	20% for 3 minutes in any 60 minute period	IDAPA 58.01.01.625 PTC #055-00040	Refer to Facility-Wide Condition 1.8
2.3	PM & PM_{10}[b]	14 lb/hr and 59.0 ton/yr 14 lb/hr and ~~46.2~~ ton/yr	PTC #055-00040	2.10, 2.18
2.4	NO_x[c]	104 lb/hr and 235.5 ton/yr	PTC #055-00040	2.13, 2.17
2.5	VOC[d]	3.6 lb/hr and 15.2 ton/yr 3.6 lb/hr and ~~11.9~~ ton/yr	PTC #055-00040	2.10, 2.18
2.6	SO_2[e]	6.0 lb/hr and 19.8 ton/yr	PTC #055-00040	2.10, 2.15, 2.18
2.7	CO[f]	106 lb/hr and 240 ton/yr	PTC #055-00040	2.16, 2.17
2.8	Fuel	Natural gas exclusively	PTC #055-00040	2.15, 2.18
2.9	Operating Time	Turbines limited to 16,848 hr/yr Turbines limited to ~~13,200~~ hr/yr	PTC #055-00040	2.10, 2.11, 2.18
2.12	NO_x Concentration	0.010% by vol. at 15% oxygen	40 CFR 60.332(a)(2) PTC #055-00040	2.13, 2.17
2.14	SO_2 Concentration	0.015% by vol. at 15% oxygen or fuel sulfur not in excess of 0.8%	40 CFR 60.333 PTC #055-00040	2.10, 2.15, 2.18
2.15	Fuel Sulfur Content	0.8% by weight	40 CFR 60.333(b) PTC #055-00040	2.15

The following changes have been made to Section B.3 (now Section 2.3):

Emissions of PM and particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers (PM_{10}) from the facility's two turbines ~~turbine operations (a total of two)~~ shall not exceed 14 pounds per hour or 59 ~~46.2~~ tons per any consecutive 12 months.

The following changes have been made to Section B.5 (now Section 2.5):

Emissions of volatile organic compounds (VOC) from the two turbines ~~the turbine operations (a total of two)~~ shall not exceed 3.6 pounds per hour or 15.2 ~~11.9~~ tons per any consecutive 12 months.

4.2 Operational Requirements

The following changes have been made to Section B.9 (now Section 2.9):

The maximum annual hours of operation of the emissions unit shall not exceed 16,848 ~~13,200~~ hours in a calendar year.

5. *REGULATORY ANALYSIS-GENERAL FACILITY*

5.1 Facility Description

5.1.1 General Process Description

The Rathdrum Combustion Turbine Project consists of two General Electric (GE) model PG7111EA Frame 7 combustion gas turbine package power plants. Each unit is 130 feet long, 40 feet wide, and 35 feet high. Each turbine package produces 83.5 megawatts of electricity at full load operating conditions. The turbines are operated on a simple cycle basis and are fueled exclusively by pipeline-quality natural gas. No backup fuels are used at the facility. The Rathdrum Combustion Turbine Project was designed to provide electricity to off-site consumers during peak power demands and on an as-needed basis.

Each combustion turbine consists of a compressor, a Dry Low Nitrogen Oxide (NO_x) combustor, a turbine and an electrical generator. Incoming natural gas is mixed with compressed air as it enters the GE Frame 7 turbines. The combination of natural gas and compressed air is fired in the combustor section of the turbine. The resulting hot exhaust gas drives the turbine blades that rotate a shaft driving both the inlet air compressor and the electric generator within the turbine. Some of the rotational energy of the shaft compresses the inlet air, but the majority of the rotational energy of the shaft propels the generator to produce the facility's electrical output.

Since the facility was designed to provide electricity on an intermittent basis, the turbines are not generally operated on a continual basis. When the need arises, the turbines (one or both) are started up and brought up to full load (base load) and maintained at full load until they are shut down. However, the duration of operation of the turbines depends on the demand, and the recent power crisis in the northwestern United States has caused turbine operation to rise to a nearly continual basis over the past six months.

5.1.2 Facility Classification

The facility is classified as major, in accordance with IDAPA 58.01.01.008.10, for Tier I permitting purposes because the facility has the potential to emit carbon monoxide (CO) at 240 tons per year (T/yr) and NO_x at 235.5 T/yr. The facility is also major as defined in IDAPA 58.01.01.006.55, but is not subject to Prevention of Significant Deterioration permitting requirements because the facility's potential to emit is below 250 T/yr.

5.1.3 Area Classification

The facility is located within Air Quality Control Region 62 and is located in Kootenai County, which is classified as attainment or unclassifiable for all federal and state criteria pollutants (i.e., sulfur dioxide [SO_2], NO_x, CO, PM_{10}, ozone, fluorides, and lead). There are no Class I areas within ten kilometers (km) of the facility.

5.1.4 Permitting History

Washington Water Power (Avista) was issued PTC No. 055-00040 on May 21, 1993. The PTC was modified on August 6, 1993; August 4, 1999; and September 7, 2001.

Avista was issued a final Tier I OP, No. 055-00040, on December 29, 2000.

5.1.5 Emissions Description

The emissions from the Avista facility are largely gaseous emissions in the form of natural gas combustion by-products. The facility does have minor sources of fugitive dust from vehicles traveling within the facility. There is about 1,500 linear feet of paved road/maintenance area at the facility; of

which only a small portion is traveled on a daily basis. There are also some unpaved areas within the facility boundary; however, vehicles do not normally travel in these areas.

Hazardous air pollutant (HAP) and/or toxic air pollutant (TAP) emissions are present from the combustion of natural gas, but the quantities are below the acceptable ambient concentrations for carcinogens (the complete TAPs analysis is contained in PTC No. 055-00040, dated September 7, 2001).

Table 5.1. Point Source Emissions

Allowable Point Source Emissions From Avista Corporation (Total for Both Turbines)	
Pollutant	**Emissions Rates (T/yr)**
PM and PM_{10}	59.0
CO	240.0
VOC	15.2
NO_x	235.5
SO_2	19.8
TOTAL	**569.5**

5.1.6 Insignificant Activities

Refer to Section six of this memorandum for a list of the insignificant activities.

5.2 Facility-Wide Applicable Requirements

5.2.1 Fugitive Particulate Matter - IDAPA 58.01.01.650-651

5.2.1.1 Requirement

Facility-Wide Condition 1.1 states that all reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

5.2.1.2 Compliance Demonstration

Facility-wide Condition 1.2 states that the permittee is required to monitor and record the frequency and the methods used by the facility to reasonably control fugitive PM emissions. IDAPA 58.01.01.651 gives some examples of ways to reasonably control fugitive emissions, which include: using water or chemicals, applying dust suppressants, using control equipment, covering trucks, paving roads or parking areas, and removing materials from streets.

Facility-wide Condition 1.3 requires that the permittee maintain records of all fugitive PM complaints received. In addition, the permittee is required to take appropriate corrective action as expeditiously as practicable after a valid complaint is received. The permittee is also required to maintain records that shall include the date that each complaint was received, a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

To ensure that the methods being used by the permittee to reasonably control fugitive PM emissions are being used, whether or not a complaint is received, Facility-Wide Condition 1.4 requires that the

permittee conduct quarterly inspections of the facility. The permittee is required to inspect potential sources of fugitive emissions during daylight hours and under normal operating conditions. If the permittee determines that the fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee is also required to maintain records of the results of each fugitive emissions inspection.

Both Facility-Wide Conditions 1.3 and 1.4 require the permittee to take corrective action as expeditiously as practicable. In general, DEQ asserts that taking corrective action within 24 hours of receiving a valid complaint or determining that fugitive particulate emissions are not being reasonably controlled meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.2.2 Control of Odors - IDAPA 58.01.01.775-776

5.2.2.1 Requirement

Facility-Wide Condition 1.5 and IDAPA 58.01.01.776 both state that: "No person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution." This condition is currently considered federally enforceable until such time it is removed from the State Implementation Plan, at which time it will be a state-only enforceable requirement.

5.2.2.2 Compliance Demonstration

Facility-Wide Condition 1.6 requires the permittee to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable. The records are required to contain the date that each complaint was received, a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Facility-Wide Condition 1.6 requires the permittee to take corrective action as expeditiously as practicable. In general, DEQ asserts that taking corrective action within 24 hours of receiving a valid odor complaint meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.2.3 Visible Emissions - IDAPA 58.01.01.625

5.2.3.1 Requirement

IDAPA 58.01.01.625 and Facility-Wide Condition 1.7 state that "(No) person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20 percent opacity as determined . . ." This provision does not apply when the presence of uncombined water, NO_x, and/or chlorine gas is the only reasons for the failure of the emission to comply with the requirements of this rule.

5.2.3.2 Compliance Demonstration

To ensure reasonable compliance with the visible emission rule, Facility-Wide Condition 1.8 requires that the permittee conduct routine visible emissions inspections of the facility. The permittee is required to inspect potential sources of visible emissions during daylight hours and under normal operating conditions. If any visible emissions are present from any point of emission covered by this section, the permittee must take appropriate corrective action as expeditiously as practicable. If opacity is determined to be greater than 20 percent for a period or periods aggregating more than three minutes in any 60-minute period, the permittee must take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136. The permittee is also required to maintain records of the results of each visible emissions inspection which must include the date of each inspection and a description of the

permittee's assessment of the conditions existing at the time visible emissions are present, any corrective action taken in response to the visible emissions, and the date corrective action was taken.

If a specific emission unit has a specific compliance demonstration method for visible emissions that differs from Facility-Wide Condition 1.8, then the specific compliance demonstration method overrides the requirement of Condition 1.8. Condition 1.8 is intended for small sources that would generally not have any visible emissions.

Facility-Wide Condition 1.8 requires the permittee to take corrective action as expeditiously as practicable. In general, DEQ asserts that taking corrective action within 24 hours of discovering visible emissions meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

5.2.4 Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset and Breakdown- IDAPA 58.01.01.130-136

5.2.4.1 Requirement

Facility-Wide Condition 1.9 requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, and upset and breakdowns. This section is fairly self explanatory and no additional detail is necessary in this technical analysis. It should, however, be noted that IDAPA Subsections 133.02, 133.03, 134.04, and 134.05 are not specifically included in the permit as applicable requirements. These provisions of the Rules only apply if the permittee anticipates requesting consideration under Subsection 131.02 of the Rules to allow DEQ to determine if an enforcement action to impose penalties is warranted. Section 131.01 states ". . . The owner or operator of a facility or emissions unit generating excess emissions shall comply with Sections 131, 132, 133.01, 134.01, 134.02, 134.03, 135, and 136, as applicable. If the owner or operator anticipates requesting consideration under Subsection 131.02, then the owner or operator shall also comply with the applicable provisions of Subsections 133.02, 133.03, 134.04, and 134.05." Failure to prepare or file procedures pursuant to Sections 133.02 and 134.04 is not a violation of the *Rules* in and of itself, as stated in Subsections 133.03.a and 134.06.b. Therefore, since the permittee has the option to follow the procedures in Subsections 133.02, 133.03, 134.04, and 134.05; and is not compelled to, the subsections are not considered applicable requirements for the purpose of this permit and are not included as such.

5.2.4.2 Compliance Demonstration

The compliance demonstration is contained within the text of Facility-Wide Condition 1.9. No further clarification is necessary here.

5.2.5 Chemical Accident Prevention Provisions - 40 CFR Part 68

5.2.5.1 Requirement

Any facility that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, must comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR Part 68 no later than the latest of the following dates:

Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130; or

The date on which a regulated substance is first present above a threshold quantity in a process.

This facility is not currently subject to the requirements of 40 CFR Part 68. However, should the facility ever become subject to the requirements of 40 CFR Part 68, then it must comply with the provisions contained in 40 CFR Part 68 by the time listed above.

The facility is required to burn natural gas exclusively. A combustion evaluation and manufacturer guarantee proves continuous compliance with grain-loading limitations of IDAPA 58.01.01.677. The combustion evaluation may be seen in Appendix A.

5.3 General Electric Combustion Turbines No. 1 and No. 2

5.3.1 Emissions Unit/Source Identification

The only specific point sources regulated under PTC No. 055-00040 are the two General Electric Combustion Turbines, No. 1 and No. 2. Section 5.3.2 of this memorandum contains each PTC condition followed by how the condition appears in the operating permit.

5.3.2 Permit Limits/Standard Summary

5.3.2.1 Emission Limits

5.3.2.1.1 Nitrogen Oxide Emission Limit

Section 1.1 of PTC 055-00040 (September 7, 2001) states:

Emissions of nitrogen oxides (NO_x) from each of the turbines shall not exceed 0.010 percent by volume of exhaust gas at 15 percent oxygen and on a dry basis as required by 40 CFR 60.332(a). Emissions of NO_x from the two turbines shall not exceed any applicable emission rate limits listed in Appendix A.

The Tier I OP contains the first sentence of this requirement as an exact quote (Section 2.12 of the permit).

The second sentence of this provision has been clarified by adding the following operating permit restriction: "Emissions of NO_x from the two turbines shall not exceed 104 pounds per hour or 235.5 tons per any consecutive 12 months."

There is a difference in the form of the original permit conditions and the condition that is in the Tier I OP. The original permit limited emissions to yearly emissions, and was originally issued when "year" was defined as a "calendar year" by the Rules. The change from the original form is the direct result of a change in DEQ/EPA policy.

Compliance with the NO_x permit limit is determined by continuous emission monitoring and reporting.

5.3.2.1.2 Sulfur Dioxide Emission Limit

Section 1.2 of PTC 055-00040 (September 7, 2001) states:

Emissions of sulfur dioxide (SO_2) from each of the turbines shall not exceed 0.015 percent by volume of exhaust gas at 15 percent oxygen and on a dry basis as required by 40 CFR 60.333(a) nor shall any fuel containing sulfur in excess of 0.8 percent by weight be burned as required by 40 CFR 60.333 (b). Emissions of SO_2 from the two turbines shall not exceed any applicable emission rate limits listed in Appendix A.

The first sentence of this requirement was incorporated as written into the Tier I OP permit (Section 2.14). As with the NO_x limit, the SO_2 emission limits of Appendix A of the PTC were clarified by incorporating the following into the Tier I OP permit: "Emissions of sulfur dioxide (SO_2) from the two turbines shall not exceed 6 pounds per hour or 240 tons per any consecutive 12 months."

Compliance with the SO_2 limit is determined by applying the sulfur content of the fuel to the amount of fuel combusted in the two turbines and assuming complete combustion. The facility is required to monitor and record fuel usage (Permit Condition 2.10) and sulfur content of the fuel (Permit Condition 2.15). Reporting requirements for this information are located in Permit Condition 2.18.

5.3.2.1.3 Particulate Matter, Carbon Monoxide, and VOC Emissions

Section 1.3 of PTC 055-00040 (September 7, 2001) states:

Emissions of particulate matter (PM), particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers (PM_{10}), carbon monoxide (CO), and volatile organic compound (VOC) emissions from the two turbines shall not exceed any corresponding emission rate limits listed in Appendix A of this permit.

These provisions of the permit have been broken down to regulate each pollutant type individually, and the reference to Appendix A has been removed, because the emission limits are given in the text of the permit now. Listed below are the Tier I OP conditions that clarify the original language.

"Particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers (PM_{10}) from the facility's two turbines shall not exceed 14 pounds per hour or 59.0 tons per any consecutive 12 months."

"Emissions of carbon monoxide (CO) from the two turbines shall not exceed 106 pounds per hour or 240 tons per any consecutive 12 months."

"Emissions of volatile organic compounds (VOC) from the two turbines shall not exceed 3.6 pounds per hour or 15.2 tons per any consecutive 12 months."

There is a difference in the form of the original permit conditions and the condition that is in the Tier I OP. The original permit limited emissions to yearly emissions, and was originally issued when "year" was defined as a "calendar year" by the Rules. The change from the original form is directly the result of a change in DEQ/EPA policy.

Compliance with the PM, PM_{10}, and VOC emission limits is determined by applying manufacturer's guaranteed emissions factors to the hourly operation of the turbines. The facility is required to monitor and record hours of operation in Permit Condition 2.10. Emissions factors can be found in Appendix A of PTC 055-00040 (September 7, 2001). Reporting requirements for hours of operation are located in Permit Condition 2.18.

The turbines are also subject to a grain-loading standard of 0.015 grains per dry standard cubic foot for PM (IDAPA 58.01.01.677). Appendix A of this technical memorandum contains a combustion analysis (based on the maximum amount of fuel that can be combusted in the turbines per hour) that demonstrates compliance with this standard, so long as the facility uses only natural gas of a like quality as that used in the combustion analysis (e.g., pipeline quality). Therefore, compliance with the grain-loading standard is demonstrated by monitoring and recording the quality source of the natural gas, specified in Permit Condition 2.15.5. Reporting requirements are specified in Permit Condition 2.15.9.

5.3.2.1.4 Visible Emissions

Section 1.4 of PTC 055-00040 (September 7, 2001) states:

Emissions from each of the turbines, or any other stack, vent, or functionally equivalent opening associated with the turbines, shall not exceed 20 percent opacity for a period or periods aggregating more than three minutes in any 60 minute period as required by IDAPA 58.0.01.625 (Rules for the Control of Air Pollution in Idaho). Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

This provision has been incorporated into the Tier I OP as a general provision.

5.3.2.2 Operating Requirements

5.3.2.2.1 Fuel

Section 2.1 of PTC 055-00040 (September 7, 2001) states:

Each of the turbines shall be exclusively fired by natural gas only.

This permit condition was quoted in the Tier I OP.

5.3.2.2.2 Annual Hours of Operation

Section 2.2 of PTC 055-00040 (September 7, 2001) states:

The maximum annual hours of operation of the emissions unit shall not exceed 16,848 hours in a calendar year.

This permit condition was quoted in the Tier I OP.

5.3.3 Monitoring and Recordkeeping Requirements

5.3.3.1 Monitoring Requirements

Compliance assurance monitoring requirements of 40 CFR 64 do not apply to this source because the source is exempt from the requirements at 40 CFR 64.2(b)(1)(iii) and 40 CFR 64.2(b)(1)(vi). The source is exempt under 40 CFR 64.2(b)(1)(iii) because the source is regulated by the acid rain requirements of the Clean Air Act and is exempt under 40 CFR 64.2(b)(1)(vi) because the Tier I OP will incorporate continuous compliance methods for each pollutant that has the potential to be emitted over major source thresholds.

5.3.3.1.1 Oxygen and Carbon Monoxide Monitoring

Section 3.1.1 of PTC 055-00040 (September 7, 2001) states:

The permittee shall install, calibrate, and operate a continuous emissions monitoring system (CEM) to monitor and record stack gas concentrations and hourly emission rates of CO from each turbine. The CO CEM shall meet all specifications and requirements of the CEM Certification Application, including procedures outlined in the Quality Assurance Plan, dated December 22, 1999, which was submitted by Avista Corporation to United States Environmental Protection Agency Region 10 (EPA) and the Department.

The original Tier I OP required that the oxygen concentration be continuously monitored and recorded using methods that are given in 40 CFR 75. The permittee has submitted their October 24, 1995 CEM Certification application to EPA Region 10 and DEQ. This plan certifies compliance with 40 CFR 75 monitoring requirements including the requirement to measure oxygen within $\leq$ 0.5 percent. Also included is certification that the CEM for CO is within $\pm$5 percent accuracy. Since the facility has certified both CO and oxygen to be within $\pm$5 percent accuracy in its October 24, 1995 submittal to DEQ and EPA, the permit requirement has been fulfilled, is considered obsolete, and has been removed from the permit.

5.3.3.1.2 Nitrogen Oxides Monitoring

Section 3.1.2 of PTC 055-00040 (September 7, 2001) states:

The permittee shall install, calibrate, maintain, and operate a CEM to monitor and record stack gas concentrations and pound per hour emission rates of NO_X from each turbine. The system shall conform to the requirements for NO_x CEM requirements of 40 CFR 75, including measuring the concentration of oxygen.

Nitrogen oxides are required to be continuously monitored and recorded by 40 CFR 75, and the Tier I OP has incorporated this requirement. The certification of accuracy of the CEM, including calibration, operation, and maintenance have been addressed in the permittee's submittal of a CEM Certification Statement to EPA and DEQ on November 2, 1995.

5.3.3.1.3 Sulfur and Nitrogen Monitoring

Section 3.2 of PTC 055-00040 (September 7, 2001) states:

The permittee shall monitor the sulfur and nitrogen contents of the fuel being fired in each of the turbines as required by 40 CFR 60.334(b).

This permit term has been changed to reflect the custom fuel monitoring plan that EPA has approved for this facility in accordance with 40 CFR 60. The language in the Tier I OP is simply a direct quotation of the EPA-approved Monitoring Plan dated April 2, 1998.

5.3.3.1.4 Hours of Operation and Natural Gas Usage

Section 3.3 of PTC 055-00040 (September 7, 2001) states:

The permittee shall monitor and record the hours of operation and hourly usage of natural gas from each of the turbines.

This provision was incorporated into the Tier I OP.

5.3.3.2 Recordkeeping Requirements

The permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit, as required by IDAPA 58.01.01.322.a and b. In addition, the permittee shall retain records of all monitoring and other requirements in the Tier I OP for the most recent five-year period. These records shall be made available to DEQ representatives upon request.

5.3.4 Reporting Requirements

The permittee shall comply with the following reporting requirements:

5.3.4.1 General Reporting Requirements

5.3.4.1.1 Compliance Assurance Reporting

Sufficient reporting is required to assure compliance with all of the terms and conditions of the Tier I OP. Reports for any required monitoring shall be submitted at least every six months in accordance with IDAPA 58.01.01.322.08.

5.3.4.1.2 Permit Deviations Reporting

In accordance with IDAPA 58.01.01.322.08, Avista must report all instances of deviations from permit requirements. Therefore, even if specific monitoring is not required by the Tier I OP, the permittee must report any deviations of which he/she is aware.

5.3.4.1.3 Excess Emission Reporting

Excess emission reporting is required to comply with the provisions of IDAPA 58.01.01.130-136.

5.3.4.2 Specific Reporting Requirements

5.3.4.2.1 Continuous Emissions Monitoring Reports

Section 4.1 of PTC 055-00040 (September 7, 2001) states:

The permittee shall report the CEM data as required in Section 3.1 to the Department and the EPA in a calendar quarterly report to be received no later than 30 days after each calendar quarter.

This provision was incorporated into the Tier I OP.

5.3.4.2.2 Fuel Contents and Usage

Section 4.2 of PTC 055-00040 (September 7, 2001) states:

The permittee shall record and submit the sulfur and nitrogen contents of the fuel being fired as specified in Section 3.2 of this permit and the hourly usage of natural gas as indicated in Section 3.3 of this permit to the Department and the EPA in a calendar quarterly report to be received no later than 30 days after each calendar quarter.

This provision was changed to the requirements of the EPA-approved custom fuel monitoring plan in the original Tier I OP (December 29, 2000). In the interest of time and associated expenses, the PTC provision was not altered in the September 7, 2001 PTC amendment. Avista's custom fuel monitoring plan fulfills the requirements of 40 CFR 334(b); and therefore, the facility is in compliance with Section 4.2 of the PTC.

The custom monitoring plan was approved by EPA on April 2, 1998. The requirements of the plan that have been incorporated into the Tier I OP are listed below:

> The permittee shall monitor fuel sulfur content in accordance with the April 2, 1998 custom alternative monitoring plan approved by EPA Region 10. The requirements of Avista's Alternative Monitoring Plan are:
>
> The alternative applies only during the use of pipeline-quality natural gas supplied exclusively by Pacific Gas Transmission Company and does not alter any of the other requirements of New Source Performance Standards Subpart A and GG that may apply to the facility.
>
> The permittee shall monitor the sulfur content of the natural gas semi-annually. The permittee may submit data from its fuel supplier, Pacific Gas Transmission Company, under a separate cover.
>
> Nitrogen monitoring shall be waived for pipeline-quality natural gas.
>
> The permittee shall maintain records of all sulfur monitoring data.
>
> The permittee shall maintain a record documenting a constant supplier or source of fuel. A substantial change in fuel quality shall be considered a change in fuel supply.
>
> The permittee shall maintain a daily record of all turbine operation on fuels other than pipeline-quality natural gas.
>
> The permittee shall maintain all records onsite for a period of five years from the generation of each such record.
>
> The permittee shall report results of all sulfur monitoring semi-annually.
>
> The permittee shall report any changes in supplier or source of fuel within 60 days of such a change.

The permittee shall report use of any fuel other than pipeline-quality natural gas within 60 days of such use.

5.3.4.2.3 Turbine Hours of Operation

Section 4.3 of PTC 055-00040 (September 7, 2001) states:

The permittee shall compile the hours of operation for each of the turbines in a monthly report to be kept on-site for a two year minimum period and made available to Department representatives upon request.

This provision was incorporated as written into the Tier I OP.

5.3.4.2.4 Responsible Official Certification

Section 4.4 of PTC 055-00040 (September 7, 2001) states:

All documents submitted to the Department, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certifications, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

This provision was incorporated as written into the Tier I OP.

6. INSIGNIFICANT ACTIVITIES

Listed below are the insignificant activities described by the source in accordance with IDAPA 58.01.01.317(b)i.

Table 6.1. Insignificant Activities

Insignificant Activities Description	Insignificant Activities Section Citation IDAPA 58.01.01.17.01(b)i
Storage tanks with lids or closure < 260 gallons	317.01.b.i.1
Storage tanks < 1,100 gallons, no HAPs, Maximum vapor pressure 550-mm Hg.	317.01.b.i.2
VOC storage tank < 10,000 gallons, with lid or closure, vapor pressure < 80 mm Hg at 21 degrees C; and gasoline storage tanks with lid or closure < 10,000 gallons	317.01.b.i.3
Butane, propane, and liquefied petroleum gas (LPG) storage tank < 40,000 gallons	317.01.b.i.4
Natural gas, butane, propane and/or LPG combustion < 5,000,000 Btu/hr	317.01.b.i.5
Welding < 1 ton per day of welding rod	317.01.b.i.9
Water cooling towers and ponds, not using chromium inhibitors, not using barometric jets or condensors, not > 10,000 gpm, not in direct contact with process streams containing regulated air pollutants	317.01.b.i.13
Cleaning and stripping activities and equipment, < 1% VOC by weight. Acid solutions on metallic substrate are not insignificant.	317.01.b.i.26
An emissions unit or activity with emissions less than or equal to 10% of levels contained in IDAPA 58.01.01.006 of the definition of significant and no more than 1 ton per year of any hazardous air pollutant.	317.01.b.i.30
Space heater using natural gas, propane, or kerosene < 5,000,000 Btu/hr	317.01.b.i.18

7. ALTERNATIVE OPERATING SCENARIOS

No alternative operating scenarios were identified by the facility.

8. TRADING SCENARIOS

There were no trading scenarios requested by the facility

9. EXCESS EMISSIONS

Avista did not submit procedures to minimize excess emissions for possible excuses from penalties.

10. COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION

10.1 Compliance Plan

Avista shall submit a compliance plan indicating each emissions unit is in compliance, and will continue to comply, with the terms and conditions of IDAPA 58.01.01.314.10. In addition, if there are additional terms or conditions applicable to the source, Avista will meet the terms and conditions on a

timely basis, as required by DEQ. Furthermore, Avista will submit a compliance schedule, if the emissions unit is not in compliance.

10.2 Compliance Certification

Avista's application for this permit contains a statement signed by their responsible official certifying compliance with all applicable requirements.

Avista shall submit a periodic compliance certification for each applicable requirement in accordance with facility-wide requirements of the permit. The permittee must certify compliance with all terms and conditions in the Tier I OP.

11. ACID RAIN PERMIT

Avista is subject to the acid rain permitting requirements of 40 CFR 72 through 40 CFR 75. The facility does not have any requirements to obtain SO_2 allowance from EPA nor does it have a NO_x emission limit through these regulations. The substance of the regulation that applies to this facility is the requirement to monitor emissions and report the results. The acid rain portion of the permit was drafted in the form of an EPA model permit. The model permit and recommendations for refinement of the model permit to fit Avista's facility was provided by Mr. Bob Miller, EPA Acid Rain Division, Washington D.C. The substance of the acid rain permit for Avista is that they must comply with the requirements listed on the Phase II application which they submitted.

12. CHEMICAL ACCIDENT PREVENTION (40 CFR 68)

Avista has certified that it does not store any of the 77 toxic substances identified under 40 CFR 68 above threshold quantities, nor does it store any substances that meet the criteria for flammability specified in 40 CFR 68 above threshold quantities.

13. AIRS DATABASE

This permit does not represent a new source at the Rathdrum facility; therefore, no Abbreviated AIRS Data Entry Sheet is required.

AIRS/AFS FACILITY-WIDE CLASSIFICATION[a] DATA ENTRY FORM

Air Program Description	SIP[b]	PSD[c]	NESHAP[d]	NSPS[e]	MACT[f]	TITLE V	AREA CLASSIFICATION A – Attainment U – Unclassifiable N - Nonattainment
SO_2	B			B		B	A
NOx	A			A		A	A
CO	A					A	A
PM_{10}	B					B	A
PM	B					B	A
VOC	B					B	U
VE/FE/FD [g]	ND	ND	ND	ND	ND	ND	

[a]AIRS/AFS CLASSIFICATION CODES:
A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 ton-per-year (T/yr) threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
B = Actual and potential emissions below all applicable major source thresholds.
C = Class is unknown.
ND = Major source thresholds are not defined (e.g., radionuclides).
[b]State Implementation Plan
[c]Prevention of Significant Deterioration
[d]National Emission Standards for Hazardous Air Pollutants
[e]New Source Performance Standards
[f]Maximum Achievable Control Technology
[g]VE/FE/FD (VISIBLE EMISSIONS, FUGITIVE EMISSIONS, AND FUGITIVE DUST) ARE ENTERED FOR COMPLIANCE PURPOSES ONLY AND DO NOT REQUIRE EVALUATION BY THE PERMIT ENGINEER.

14. REGISTRATION FEES

The Avista facility is a major facility as defined in IDAPA 58.01.01.008.10 and is therefore subject to registration and registration fees in accordance with IDAPA 58.01.01.527. According to the Air Emissions Data Base Master List for 2000, the Avista Corporation, Rathdrum facility has registered 105.24 tons of pollutants by paying fees.

15. RECOMMENDATION

Based on the Tier I application and review of the federal regulations and state rules, DEQ staff recommends that DEQ issue a modified Tier I OP to Avista for the facility located near Rathdrum, Idaho.

Appendix A

Avista Corporation, Rathdrum
Increase in Hourly Operational Limit/T1-010902
Combustion Evaluation

Combustion Evaluation

Avista Corporation / Natural gas combustion

Fuel Data (% by weight)	
S	0
N2	0.76
C	74.72
H2	23.3
H20	0
O2	1.22

Fuel burned (lb/hr)	45931.7
Excess air (%)	200
Stk temp (F)	995
Stk press (atm)	0.95

Combustion Air Required

	O2 lb.mole	N2 lb.mole
S	0	0
N2	0	0
C	2860.01385	10759.0997
H2	2675.52153	10065.0572
O2	-17.511461	
	5518.02392	20824.1569

stioc. comb air = 29047.681 lb.mole/hr

stoic. dry comb air = 23684.1708 lb.mole/hr

Flue Products

	lb.mole	lb/hr
SO2	0	0
N2	62484.9379	1749578.26
CO2	2860.01385	125840.61
H2O(comb)	5351.04305	96318.7749
O2	11036.0478	353153.531
H20(fuel)	0.00	0
dry	76380.9996	
wet	81732.0426	96318.7749

Volume of flue gas (acfm)	**1523429.35**
Volume of flue gas (sdcfm)	483369.518
Volume of flue gas (dscfm@7%O2)	224824.359
Volume of flue gas (dscfm@15%O2)	524590.172
Volume of flue gas (dscfm@8%02)	242118.541
Volume of flue gas (dscfm@3%02)	174863.391
Volume of flue gas (dscfm@10%02)	286140.094

Manufacturer gaurantee Particulate Emissions .7 $\frac{lb}{hr}$

or .7 $\frac{lb}{hr}\left(\frac{7000\ gr}{lb}\right) = 49{,}000\ \frac{gr}{hr}$

$$\frac{49{,}000\ \frac{gr}{hr}\left(\frac{hr}{60\ min}\right)}{174863.391\ dscfm@3\%O_2} = .0046\ \frac{grain}{dscf@3\%O_2}$$

5.3.21.3

Appendix B

Avista Corporation, Rathdrum
Increase in Hourly Operational Limit/T1-010902
Response to Public Comment

July 25, 2001

STATE OF IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY RESPONSES TO COMMENTS AND QUESTIONS SUBMITTED DURING A PUBLIC COMMENT PERIOD FOR THE PROPOSED PERMIT TO CONSTRUCT AND TIER I OPERATING PERMIT FOR AVISTA CORPORATION'S RATHDRUM FACILITY

Introduction

The public comment period for the Avista Corporation (Avista) Rathdrum facility permit application, proposed Permit to Construct (PTC), and proposed Tier I operating permit (OP) was held from June 1, 2001 through July 12, 2001 as required by IDAPA 58.01.01.209 and 364 (*Rules for the Control of Air Pollution in Idaho*). Public hearings were held on June 19, 2001 and July 12, 2001 as required by IDAPA 58.01.01.209 and 364. The proposed PTC and Tier I OP contain minor administrative amendments and permit modifications to the facility's existing permit limits that increase the allowable annual hours of operation. The increased operation time results in additional emissions, such that permit modifications to the facility's existing permitted emissions limits for particulate matter (PM), particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), and volatile organic compounds (VOCs) were also required. Comment packages that included the permit application submitted by Avista, Idaho Department of Environmental Quality (DEQ) technical analysis, and the proposed permit were made available at DEQ's State Office in Boise, DEQ's Regional Office in Coeur d'Alene, and the Rathdrum Kootenai County Library. Comments were received by DEQ through postal mail, fax, and electronic mail. Additionally, one recorded comment was taken at the first public hearing.

Public and U.S. Environmental Protection Agency (EPA) comments regarding the air quality aspects of the proposed permit and analysis have been summarized below. Due to the similarity of many of the comments received, the summary presented below will have some comments that have been combined and/or paraphrased in order to eliminate duplication and to provide a more concise summary. Questions, comments, and/or suggestions received during the comment period which do not relate to the air quality aspects of the permit application, DEQ's technical analysis, or the proposed permit are not addressed.

Public and EPA Comments and DEQ Responses

Comment 1: **Several public comments were submitted to DEQ addressing an adverse impact to ambient air quality as a result of the increase in permitted emissions from Avista's Rathdrum facility.**

Response to 1: The proposed increase in the allowable annual hours of operation is an additional 3648 hours per year (hr/yr) of turbine operation. This additional operation of the turbines will result in increased emissions from the turbines; however, all emissions increases resulting from the additional operation are within current permit limits, with the exception of PM/PM_{10} and VOCs. The proposed increase in allowable emissions is 32 tons per year (T/yr) of PM/PM_{10} emissions and 8.2 T/yr of VOCs. An emissions increase is allowed provided the increase does not cause or contribute to a violation of an applicable ambient air quality standard, in accordance with IDAPA 58.01.01.203.

In accordance with IDAPA 58.01.01.202.02, the increases in permitted emissions were modeled using the EPA approved ISC-ST3 air quality computer model to predict the impact of these increased emissions on the ambient air. The predicted impact indicates the source will not cause or contribute to a violation of an ambient air quality standard. Since

ambient air quality standards are protective standards put in place to protect human health and welfare, as well as environmental air quality, this increase in emissions does not represent an adverse impact to human health or the environment.

Existing permit limits for pollutants other than PM/PM_{10} and VOCs were previously demonstrated to be in compliance with all applicable air quality and emissions standards through the use of a modeling demonstration. As these permit limits are not increasing, the existing airshed quality is preserved.

Comment 2: **A public comment was submitted to DEQ expressing concern over a lack of actual studies of ambient air quality in the Rathdrum area. The comment also expresses concern over co-contributing sources in the area.**

Response to 2: With the exception of PM, PM_{10}, and five toxic air pollutants (TAPs), all emissions increases from the Avista facility were insignificant; therefore, these increases do not represent a threat to human health or the environment. DEQ does conduct monitoring for particulate in the area, and data collected by area monitors was used in the modeling impact analysis for PM and PM_{10}.

In lieu of actual ambient air quality studies, the *Rules for the Control of Air Pollution in Idaho* requires DEQ to regulate criteria pollutants based on national ambient air quality standards set by the EPA. TAPs are regulated by application of occupational exposure limits as established by the Occupational Safety and Health Administration. DEQ uses a conservative approach when applying these standards to emissions estimates and modeling to ensure public safety and environmental protection. The ambient impacts of all five TAPs were well below the acceptable ambient concentration limits set forth in IDAPA 58.01.01.585-586.

The Avista facility does not produce more than 250 T/yr of any regulated pollutant. In accordance with IDAPA 58.01.01.205.04(a), Avista is not legally required to account for co-contributing sources in the area.

Comment 3: **A public comment was submitted to DEQ expressing concern over an "abnormally high NO_x limit," with respect to NO_x emissions from another Rathdrum power plant, Rathdrum Power LLC.**

Response to 3: It is important to note that the Rathdrum Power LLC facility is a designated facility (IDAPA 58.01.01.006.27) and is therefore subject to a 100 T/yr Prevention of Significant Deterioration (PSD) threshold. The Avista facility is not a designated facility and has a PSD threshold of 250 T/yr. This, in part, is the reason for the differences in permit limits, since many facilities take permit limits such that a PSD review is not required.

The NO_x limit for this permitting action is not increasing, nor was it increased in the 1999 permit modification. The limit of 235.5 T/yr of NO_x was established in the original PTC No. 055-00040, issued on August 6, 1993. The ambient impact of the NO_x emissions was modeled using the EPA-approved SCREEN 3 computer model, and demonstrated compliance with all applicable regulations. So long as the facility

demonstrates compliance with all applicable regulations, IDAPA 58.01.01.203 allows the facility to be granted a PTC.

It should also be noted that the permitted emissions limits do not represent the actual emissions from the facility. Continuous emissions monitoring reports for NO_x indicate that actual NO_x emissions from the Avista facility have historically been lower than 235.5 T/yr.

Comment 4: **A public comment was submitted to DEQ stating that the current emission limits are difficult to enforce. The comment further states that emission limits should be established in parts-per-million (ppm) to allow "brief, random" compliance testing.**

Response to 4: The currently-purposed permits use emissions rate limits expressed in T/yr and pounds per hour (lb/hr) to regulate air pollutants emitted from the facility. A concentration-based limit (i.e., ppm) would not effectively regulate the total amount of any pollutant emitted because the actual, concentration-based emissions of any pollutant are dependent upon the total amount of flow in the turbine exhaust. For example, the concentration of a given pollutant could be held to a constant percentage of the total mass of the exhaust, although the actual amount of a pollutant emitted would vary with any variance in total exhaust flow (i.e., an emissions rate limit might be met at lower exhaust flows, but exceeded at high exhaust flows even though the concentration in the exhaust remains constant).

Hourly and annual rate limits are used to preserve ambient standards, which are expressed in hourly and/or annual impacts for criteria pollutants (IDAPA 58.01.01.577) and toxic air pollutants (IDAPA 58.01.01.585-586). By regulating the emissions rate of pollutants, DEQ regulates the total amount of pollutants emitted into the airshed, as required by the *Rules for the Control of Air Pollution in Idaho*, and thus protects public health and the environment.

"Brief, random" compliance testing is not generally viewed as an effective means for demonstrating compliance with a permit. The Avista facility is subject to annual and hourly emissions rate limits with associated recordkeeping and reporting requirements. The annual requirements are done on a rolling 12-month basis, ensuring compliance regardless of the calendar year. Although these requirements place an additional workload on Avista personnel, they ensure on-going compliance with the permit and the *Rules for the Control of Air Pollution in Idaho.*

Comment 5: **A public comment was submitted to DEQ noting a lack of emissions control technology at the facility. The comment additionally stated that control technology should be required in response to increased NO_x and CO emissions.**

Response to 5: In accordance with IDAPA 58.01.01.203, the modification is subject to emissions standards, ambient air quality standards, and toxic air pollutant standards (IDAPA 58.01.01.585-586). Avista has successfully demonstrated compliance with all applicable standards and is not legally required to further reduce emissions.

Comment 6: **A public comment was submitted to DEQ questioning the potential to emit greater than 250 T/yr of nitrogen oxides (NO_x) and carbon monoxide (CO).**

Response to 6: The *Rules for the Control of Air Pollution in Idaho* state that "any physical or operational limitation on the capacity of the facility to emit an air pollutant, provided the limitation...is state or federally enforceable, shall be treated as part of its design" (IDAPA 58.01.01.006.74). The limit placed on hours of operation effectively limits the potential of the Avista facility to less than 250 T/yr for both of these pollutants.

Additionally, continuous emissions monitoring and reporting are required for both NO_x and CO, so that any exceedance of the permitted limits would be identified.

Comment 7: **The EPA submitted comments regarding the Tier I OP and technical analysis to DEQ noting incorrect citing in Table 2.1, miscellaneous citation errors within the permit, and rewording recommendations for the permit and technical analysis.**

Response to 7: These comments were determined to be substantive; subsequently, the Tier I operating permit and technical analysis have been changed to incorporate EPA's rewording suggestions. Additionally, all citations have been proofed and corrected.

Comment 8: **The EPA submitted comments regarding the Tier I OP to DEQ noting a lack of monitoring and recordkeeping requirements for PM, PM_{10}, opacity, and VOCs.**

Response to 8: Emission limits for the criteria pollutants are established in PTC No. 055-00040. The model demonstrating ambient compliance with PM, PM_{10}, and VOCs, detailed in the PTC technical memorandum, is based on the maximum allowable hours of operation for the facility. So long as Avista complies with the annual limit set on hours of operation, compliance with the emissions limits has been demonstrated. Therefore, recordkeeping requirements for hours of operation (Sections 2.10 and 2.11 of the Tier I OP) serve as a surrogate for monitoring and recordkeeping requirements of PM, PM_{10}, and VOCs. This satisfies the requirements of IDAPA 58.01.01.322.07(a), for "sufficient recordkeeping to assure compliance with all terms and conditions of the Tier I operating permit."

In Section 1 of the Tier I OP (Facility-Wide Conditions), permittee is required to conduct quarterly facility-wide visible emissions inspections (Section 1.8 of the permit). Section 1.8 further requires maintenance of records of these inspections. Considering that the facility only combusts natural gas and is unlikely to experience opacity problems, the facility-wide requirements are deemed sufficient to assure compliance with the opacity rules and associated requirements.

Comment 9: **The EPA submitted comments regarding the Tier I OP to DEQ noting a lack of reporting requirements for PM, PM_{10}, opacity, VOCs, SO_2 [sulfur dioxide], fuel usage, and operating time.**

Response to 9: Section 5.24 of the Tier I OP states that all required monitoring be reported every six months, including any deviation from the permit requirements.

End of comments.